Completion Summary for City of Portland Outfall Basin 52D

1 Summary

The City of Portland (City) has been addressing source control concerns related to the City conveyance systems for more than four decades, and several City programs have evolved to meet changing regulatory requirements and watershed health objectives. Following the 2000 listing of Portland Harbor on the National Priorities List, the City initiated a new partnership with the Oregon Department of Environmental Quality (DEQ) Cleanup Program to identify specific sources of contaminants to City stormwater conveyance systems in the harbor that were not being adequately controlled. This report summarizes the results of this collaborative effort in Outfall Basin 52D.

This Completion Summary includes a weight-of-evidence evaluation to demonstrate that source identification is complete and a summary of source controls (implemented or planned) to control future contaminant discharges to the Willamette River.

Basin 52D is located on the east side of the river within the International Slip area in north Portland, an area with a long history of shipbuilding and marine terminal operations. The outfall discharges at the head of International Slip at approximately River Mile (RM) 3.9. Outfall 52D was constructed relatively recently (1994), and the entire basin consists of three sites. Most of the land in Basin 52D is part of the Schnitzer Burgard Industrial Park (BIP), and land use in the basin is all industrial. Current operations in the basin include trucking/warehousing, truck leasing, and repair and cleaning of intermodal shipping containers.

Multiple sites comprise the Schnitzer BIP, and Schnitzer is in the process of conducting a stormwater source control evaluation (SCE) under DEQ oversight that covers all of Basin 52D (also known as BIP Basin 21) as part of its BIP Source Control Project. Current source investigation activities include stormwater and inline sediment data collection; Schnitzer and DEQ will determine source control measures (SCM) based on results of the SCE. The City will continue to provide Schnitzer with access to the conveyance system and to coordinate with DEQ on source investigation and controls in Basin 52D.

Because all potential contaminant sources to the basin are being investigated by Schnitzer BIP and SCMs for these sites will be determined under DEQ oversight, future discharges from Outfall 52D are unlikely to represent a significant source of contaminants to the river. Therefore, the City has met the remedial investigation (RI)/SCM objectives for Basin 52D.

2 Introduction

This Completion Summary presents a weight-of-evidence evaluation of whether further source investigation is needed in Basin 52D, and the rationale for concluding that future discharges from the basin are not likely to be significant sources of contaminants to river sediment. The purpose of this report is to demonstrate that the City has met the RI/SCM objectives of the August 13, 2003, intergovernmental agreement (IGA) between the City and DEQ. The City and

DEQ have identified all major sources of contaminants to the basin and are using their respective authorities to ensure that source controls are implemented where needed.

This report is included in Appendix A of the *Municipal Stormwater Source Control Report for Portland Harbor* (Municipal Report), which provides additional background and detail regarding the City's harborwide source control efforts, including regulatory and non-regulatory programs to address current and future sources and to minimize recontamination potential.

3 Outfall and Basin Setting

3.1 Basin Location and Configuration

Outfall 52D discharges on the east shore of the river at the head of International Slip, at about RM 3.8. The drainage area for the outfall is approximately 24 acres. Figure 1 shows the location of Outfall 52D and current drainage basin boundary and provides an overview of the associated stormwater conveyance system. Additional detail on the Outfall 52D stormwater conveyance system and associated drainage basin is included in the report titled *Basin 21 Storm Water Sampling and Analysis Data, Source Control Evaluation, Burgard Industrial Park, Portland, Oregon* (Bridgewater, 2013).[1]

3.2 Land Use and Potential Upland Sources

Although the International Slip area has a long history of industrial operations associated with shipbuilding and marine terminals, Outfall 52D was constructed relatively recently (1994). Basin 52D consists entirely of private property, most of which is within the Schnitzer BIP. Current land use in the basin is industrial and includes: trucking/warehousing (at the former RoMar Transportation site); truck and equipment leasing (on a portion of the former Boydstun Metal Works site); and repair and cleaning of intermodal shipping containers (at the Portland Container Repair site). No public rights-of-way or public lands drain to this outfall.

All sites within or partially within the basin are in the DEQ Cleanup Program, as listed in DEQ's Environmental Cleanup Site Information (ECSI) database. Two of the three properties in the basin (Boydstun and Portland Container) are within the Schnitzer BIP (see Figure 1). Schnitzer BIP currently is conducting a stormwater pathway evaluation that includes all stormwater drainage to Outfall 52D (i.e., stormwater from these two sites and from the western portion of the RoMar site, which is outside of the Schnitzer BIP boundary). In addition, the RoMar site completed a site investigation and contaminated soil removal from the eastern portion of the site under DEQ oversight. Table 1 lists the DEQ Cleanup Program sites in the basin, the associated contaminants of interest (COI), and the current status of stormwater pathway evaluations.

[1] Note that delineation of drainage to Outfall 52D (also known as BIP Basin 21) does not match the current City delineation. The BES Industrial Stormwater Program verified the City delineation.

Table 1. DEQ Cleanup Program Sites In or Adjacent To Basin 52D

DEQ Cleanup Program Site	Site COIs (1)	Stormwater Pathway
Boydstun Metal Works Inc. (ECSI #2362)	PAHs, PCBs, metals	Source Control Evaluation In Progress(2,3)
Portland Container Repair Corp (ECSI #2375)	TPH (4)	Source Control Evaluation In Progress (2,3)
RoMar Transportation Systems, Inc. (ECSI #2437)	TPH, PCBs, metals (4)	Source Control Decision/No Further Action (5)
Schnitzer Burgard Industrial Park (SBIP) (ECSI #5324)(6)	VOCs, TPH, PCBs, metals	Source Control Evaluation In Progress

Notes:

PAHs = polycyclic aromatic hydrocarbons; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; DEQ = Oregon Department of Environmental Quality; COIs = contaminants of interest; PCBs = polychlorinated biphenyls; ECSI = Environmental Cleanup Site Information

(1) Unless otherwise noted, site COIs are those identified in Appendix Q (Source Control Inventory Tables) of the Portland Harbor RI/FS Draft Feasibility Study (FS) (Anchor et al., 2012).

(2) This ECSI site is not tracked in the DEQ Milestone Report (DEQ, 2013).

(3) The Schnitzer BIP Basin 21 source control evaluation includes evaluation of the stormwater pathway from this site to Outfall 52D (Bridgewater, 2012).

(4) COIs are not listed for this site in Appendix Q of the Draft FS (Anchor et al., 2012). COIs listed are identified in Table 4.2-2 of the Draft Final RI (Integral et al., 2011).

(5) Only stormwater from the developed portion of this site discharges to Basin 52D. Drainage from the site is included in the BIP Basin 21 evaluation, although the 2006 DEQ decision for the site concluded that further evaluation of this pathway was a low priority.

(6) The Schnitzer BIP site encompasses multiple individual ECSI sites, including, but not limited to, Boydstun Metals and Portland Container Repair Corp.

Industrial sites covered, or historically covered, by National Pollutant Discharge Elimination System (NPDES) stormwater regulations also were considered as potential contaminant sources to the City conveyance system. Table 2 lists industrial sites that currently hold, or historically held, NPDES permits to discharge to the Basin 52D conveyance system. Figure 1 shows sites with current NPDES permits.

Table 2. Current(1) and Historical NPDES Permit Coverage in Basin 52D

Address	Company	Permit Type	Time Period
9449 N Burgard Way	**Portland Container Repair Inc**	Stormwater (1200-Z)	2001 – Present
9125 N Time Oil Rd.	Boydstun Metal Works	Stormwater (1200-Z)	2001 – 2010

Notes:

NPDES = National Pollutant Discharge Elimination System

(1) Current permits are indicated in bold.

3.3 Outfall Setting

Outfall 52D discharges to an area of potential concern (AOPC 3) identified by the U.S. Environmental Protection Agency (EPA) based on elevated concentrations of PCBs and other contaminants (EPA, 2010). In addition to Outfall 52D, 4 non-City outfalls drain to the east end of the International Slip; 16 non-City outfalls discharge throughout the International Slip. Overwater activities (e.g., dock operations, material loading and unloading) occur within the AOPC in the vicinity of Outfall 52D.

4 Basin Screening and Source Investigations

Given that Outfall 52D drains only private industrial property, it had not been identified as part of the City's stormwater conveyance system until several years after the City's outfalls investigation was underway. After a records review confirmed that ownership of the outfall and connecting stormwater lines transferred to the City, the City began coordinating with DEQ and Schnitzer on the investigation of this basin. In 2010, DEQ requested Schnitzer, the current and/or former owner/operator of the properties within Basin 52D, to conduct a stormwater SCE for this basin (Bridgewater, 2012). To assist with this effort, the City conducted video surveys of the system in 2011 and reviewed as-built drawings and site drainage records to delineate the basin. Initial delineation of the drainage basin has been refined through smoke and flow testing conducted by Schnitzer (Bridgewater, 2012).

The Basin 52D (identified as Basin 21 by Schnitzer) source control investigation includes stormwater and solids sampling from locations in the conveyance system representing discharges to the conveyance system from each of the three sites as well as a location close to the outfall that represents the combined discharge from the whole basin (Bridgewater, 2012). To date, two of four planned rounds of stormwater sampling have been completed. During the second stormwater sampling event (March 5, 2013), City Field Operations staff collected splits of each of the stormwater samples. Preliminary evaluation of the results of the first two stormwater sampling events, informed by observations during the second sampling event (BES, 2013), indicate that PCBs are being discharged to the conveyance system from the Portland Container site.[2] This site is mostly unpaved (Bridgewater, 2012), and PCBs were detected in soil samples collected from this site in the early 1990s (AMEC, 2006). Results of the ongoing Basin 52D stormwater SCE will be used by DEQ to identify SCMs that may be necessary at the Portland Container site and elsewhere in the basin to address current and future discharges to the river via the Basin 52D conveyance system (Bridgewater, 2012).

[2] Stormwater samples from this location were collected at the discharge point from the site's stormwater treatment system, which includes a stormwater retention pond and filtration system.

Table 3 lists investigations completed in the Basin 52D conveyance system.

Table 3. Investigations in the Basin 52D Stormwater Conveyance System

Data Collection Period	Party	Purpose	Documentation
2012 – 2013	Schnitzer	Collected stormwater and solids data from sampling locations representing all sources to Basin 52D (i.e., BIP Basin 21) to evaluate whether major contaminant sources are discharging to the conveyance system and to determine if additional SCMs are needed in the basin.	Basin 21 Storm Water Sampling and Analysis Data (Bridgewater, 2013)
2013	City	Observed sampling and collected splits of the stormwater samples collected by Schnitzer during the March 5, 2013, stormwater sampling event to provide additional basis for interpretation of the analytical results.	Transmittal of data from sample splits to Schnitzer/Bridgewater (BES, 2013)

Notes:

BIP = Schnitzer Burgard Industrial Park; SCMs = source control measures

5 Completion of Source Identification

The lines of evidence evaluated to verify that source tracing is complete include (1) results of the ongoing Schnitzer BIP SCE and (2) the upland site investigation coverage in the basin. Findings from this evaluation are summarized below.

- *Source Control Evaluation Results*: The Basin 52D/BIP Basin 21 SCE is underway and includes sampling locations representative of the upland site stormwater discharges to the conveyance system. Preliminary results indicate that the Portland Container site is a major source of PCBs to the system (BES, 2013). Schnitzer and DEQ will evaluate subsequent results to verify that source tracing in the basin is complete.
- *Upland Investigation Coverage:* Figure 2 displays the spatial extent of programmatic controls (see key to figures provided at beginning of this Appendix) in the basin. As shown in Figure 2, the entire basin is covered under the DEQ Cleanup Program. In addition, all sites have been inspected for stormwater exposures by the City's Industrial Stormwater Program.

Based on these lines of evidence, the City concludes that City source tracing in Basin 52D is not needed and that all major sources will be identified at the conclusion of the Schnitzer BIP SCE.

6 Basin Source Controls

The City and DEQ will collaborate under their respective authorities to identify control mechanisms for major contaminant sources that are identified in the basin following completion of the Schnitzer BIP SCE. Additionally, source control for sites in Basin 52D includes ongoing City and DEQ programs that are described in the Municipal Report and SCMs completed at these sites under DEQ Cleanup Program agreements. Source controls implemented in Basin 52D are displayed in Figure 2 and summarized in this section.

One type of programmatic source control is elimination of stormwater exposures to industrial activities. Trucking operations at one site in the basin historically held and currently hold an NPDES No Exposure Certification (NEC) (see Table 4).

Table 4. Sites with No Exposure Certification (NEC) in Basin 52D[1]

Address	Company	NEC Time Period
9333 N Time Oil[2]	R & L Carriers	2008 – 2011
	Pro Truck Lines	**2013 – present**

Notes:
(1) Current NECs are indicated in bold.
(2) This address is the RoMar Transportation Systems site, where different trucking operations have operated following site development.

Table 5 summarizes additional site-specific and programmatic source controls completed to date for Basin 52D are summarized.

Table 5. Basin 52D Source Controls

Site/Area	Source Controls	Timeframe/Status
Source Control Measures (SCM) at DEQ Cleanup Program Sites [1]		
Boydstun Metal Works, Inc.	To be determined.[2]	To be determined
Portland Container Repair Corp (ECSI #2375)	PCB-contaminated soil in the northern portion of the site was excavated and removed from the site.	Early 1990s
	Stormwater filter system and stormwater retention pond treat all stormwater discharges from the site to the Basin 52D conveyance system.	Ongoing
	Additional SCMs to be determined.[2]	To be determined
RoMar Transportation Systems, Inc. (ECSI #2437)	PCB-contaminated surface soil was excavated and removed from the eastern portion of the site.	1993
	Additional surface soil containing PCBs and chromium at concentrations above applicable risk-based standards was excavated and removed from the site.	2006
	Additional SCMs to be determined.[3]	To be determined
Schnitzer Burgard Industrial Park (SBIP) (ECSI #2355/5324)	Additional SCMs to be determined.	To be determined

Site/Area	Source Controls	Timeframe/Status
Other (Programmatic Source Controls)		
Pro Truck Lines	**City Discharge Authorization**(4)	Ongoing
Portland Container Repair	**NPDES 1200-Z Stormwater Permit Requirements**	Ongoing
Pro Truck Lines	**No Exposure Certifications**	Ongoing

Notes:

PCBs = polychlorinated biphenyls; DEQ = Oregon Department of Environmental Quality; ECSI = Environmental Cleanup Site Information; NPDES = National Pollutant Discharge Elimination System

(1) For upland sites, descriptions of SCMs are based on information in DEQ Milestone Report (DEQ, 2013), DEQ source control decisions, and/or reports on file with DEQ (AMEC, 2006; Bridgewater, 2000, 2013; Creekside, 2006).

(2) SCMs for this site will be determined based on results of the Schnitzer BIP Basin 21 source control evaluation (Bridgewater, 2012).

(3) Though this site was issued a source control decision and no further action determination by DEQ in 2006, data being collected by Schnitzer BIP may identify a need for additional source control on the western portion of the site. SCMs for this site will be determined on the basis of results of the Schnitzer BIP Basin 21 source control evaluation (Bridgewater, 2012).

(4) Additional site-specific stormwater pollution controls required and implemented under City Code.

Other municipal programs (e.g., periodic inspection of and technical assistance to non-NPDES sites, illicit discharge monitoring, etc.) likely provide additional source control benefits in the basin and will help to address minor sources for which specific control measures have not been required. City programs that control current and future contaminant discharges to the conveyance system are described in the Municipal Report.

7 Conclusion

Only three sites are located within Basin 52D, and SCMs are being implemented and/or determined at all three sites under DEQ regulatory authority. Therefore, future discharges from Outfall 52D are unlikely to represent a significant source of contaminants to the river. The City concludes that it has met the RI/SCM objectives of the IGA and requests a source control decision from DEQ for Basin 52D.

8 References

AMEC. 2006. Phase 1 Environmental Site Assessment, Lot 14 Burgard Industrial Park, Portland, Oregon. Prepared by AMEC Consulting. June 23, 2006.

Anchor et al. 2012. Portland Harbor RI/FS Draft Feasibility Study. Prepared for The Lower Willamette Group by Anchor QEA, LLC, Windward Environmental, LLC, Kennedy/Jenks Consultants, and Integral Consulting, Inc. February 2012.

BES. 2013. Subject: City Split Sample Results - BIP Basin 21. Email to M. Cusma (Bridgewater) from L. Scheffler (City of Portland, Bureau of Environmental Services). April 3, 2013.

Bridgewater. 2000. Burgard Industrial Park – Site History Review. Prepared for Schnitzer Steel Industries by Bridgewater Group, Inc. September 25, 2000.

Bridgewater. 2012. Source Control Evaluation, Basin 21 Storm Water and Storm Water Solids Revised Sampling and Analysis Plan, Burgard Industrial Park, Portland, Oregon. Bridgewater Group, Inc. May 1, 2012.

Bridgewater. 2013. Basin 21 Storm Water Sampling and Analysis Data, Source Control Evaluation, Burgard Industrial Park, Portland, Oregon. Bridgewater Group, Inc. March 1, 2013.

Creekside. 2006. Soil Remediation and Confirmatory Sampling and Analysis Report; Subject Property: Ro-Mar Transportation Systems Facility, 9333 N. Time Oil Road, Portland, OR. Prepared for Ro-Mar Realty of Oregon and the Oregon Department of Environmental Quality. Prepared by Creekside Consulting, LLC. February 2006.

DEQ. 2013. Milestone Report, Upland Source Control at the Portland Harbor Superfund Site, January 2013. Prepared by the Oregon Department of Environmental Quality. January 2013.

EPA. 2010. Re: Portland Harbor Superfund Site; Administrative Order on Consent for Remedial Investigation and Feasibility Study; Docket No. CERCLA-10-2001-0240. Portland Harbor Feasibility Study Source Tables. Letter from EPA to Mr. Bob Wyatt, Chairman, Lower Willamette Group. November 23, 2010.

Integral et al. 2011. Portland Harbor RI/FS, Draft Final Remedial Investigation Report. Prepared for the LWG. Prepared by Integral Consulting Inc., Windward Environmental LLC, Kennedy/Jenks Consultants, and Anchor QEA, LLC. August 29, 2011.

List of Figures

Figure 1: Basin 52D Overview

Figure 2: Basin 52D Upland Site Source Controls

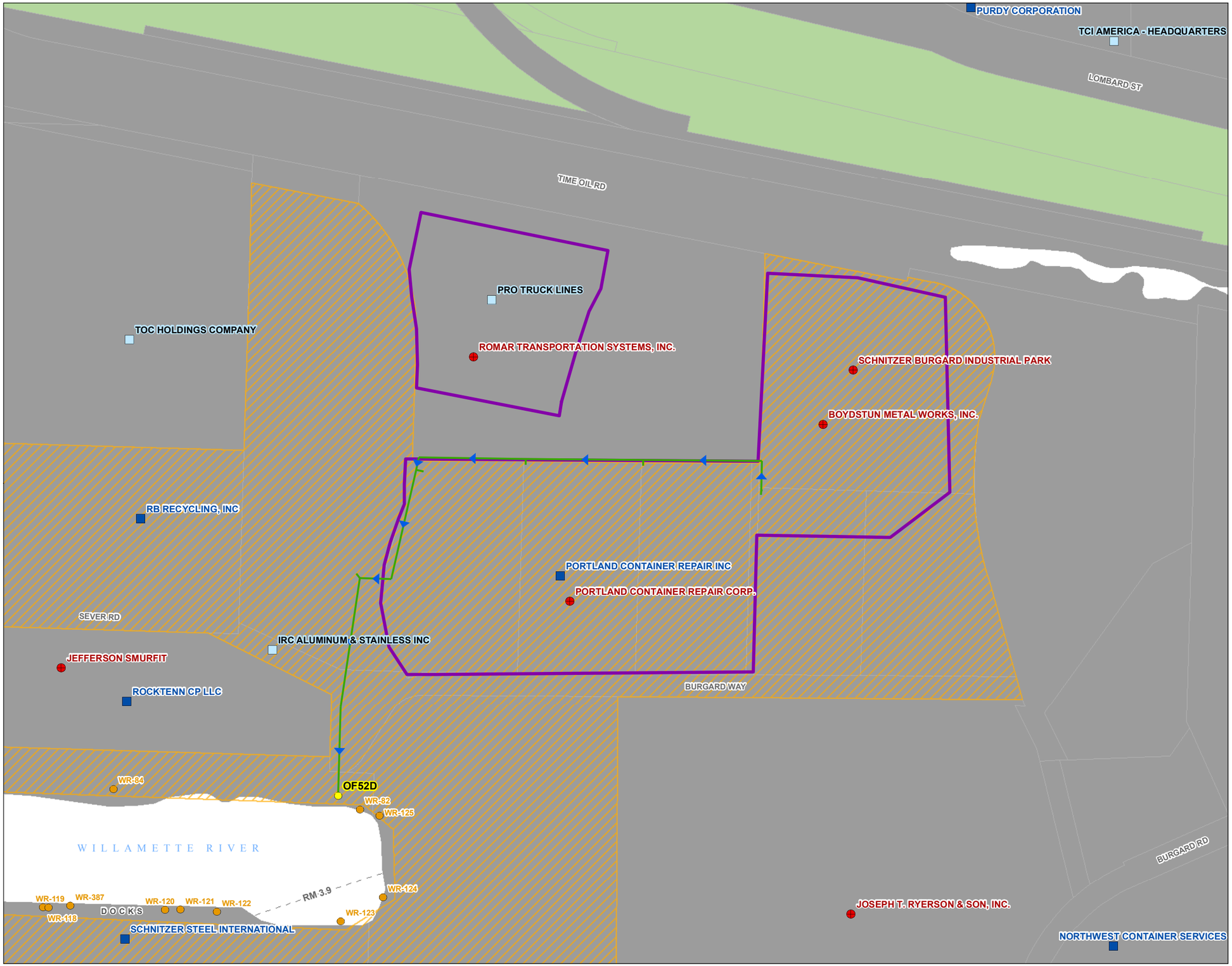

FIGURE 1

Basin 52D Overview

- Basin 52D
- Schnitzer BIP
- DEQ ECSI Site
- NPDES Stormwater Permit
- NPDES No Exposure Certification

Conveyance System

- Storm Line
- City Outfall
- Non-City Outfall

Land Use/Zoning

- Heavy Industrial
- Parks and Open Space

All Other Data

- River Mile (RM)
- Tax Lot
- Discharges to City Outfall
- Portland Harbor Hydroboundary

N

0 125 250 375

Feet

MAP NOTES:

Date: December 31, 2013

Data Sources: BES, METRO

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
1120 SW Fifth Avenue, Room 1000
Portland Oregon, 97204-1912

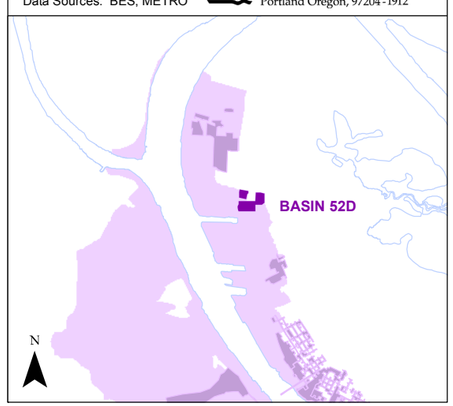

FIGURE 2

Basin 52D
Upland Site Source Controls

Basin 52D
Tax Lot

DEQ Stormwater SCE

SCE implemented or pending

All Other Features

NPDES Stormwater Discharge Permit
City Discharge Authorization
NPDES No Exposure Certification
Stormwater Treatment Facility
Site Inspection - BES Industrial Stormwater Program
Discharges to City Outfall
Portland Harbor Hydroboundary

NOTE:
The DEQ Milestone Report (DEQ, 2013) indicates that SCEs are not needed or are a low priority for the eastern and southern tax lots within the basin. Based on discussions with DEQ, these tax lots are currently being evaluated as part of the Schnitzer Burgard Industrial Park SCE, and therefore are shown here as SCE pending.

N

0 125 250 375
Feet

MAP NOTES:
Date: December 31, 2013
Data Sources: BES, METRO, Aerial Photo Taken 2012

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